

WHAT IS CLAIMED IS:

Sub a3

1. A power supply circuit, which has a scan driver power circuit for supplying a scan drive voltage to a scan driver for scanning a liquid crystal display device, and which has a data driver power circuit for supplying a data drive voltage to a data driver for sending display data to said liquid crystal display device, said data driver power circuit comprising:

an input power supply serving as a universal power supply therefor;

an amplifying element having an input terminal connected to said input power supply, and having a control terminal, and an output terminal from which the data driver power voltage is outputted;

an electric current limiting resistor having a first terminal connected to said input power supply, and having a second terminal connected to said control terminal of said amplifying element; and

a diode group including a plurality of series-connected diodes each having a cathode terminal connected to said control terminal of said amplifying element, and having an anode terminal connected to the ground.

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2. The power supply circuit according to claim 1, wherein said scan driver power circuit comprises:

an input power supply serving as a universal power supply therefor;

an amplifying element having an input terminal connected to said input power supply, and having a control terminal and an output terminal from which the data driver power voltage is outputted;

a divider circuit, provided between said input power supply and the ground, for setting an upper limit value of a voltage applied to said control terminal of said amplifying element of said scan driver power circuit; and

a variable resistor having a resistance

variation terminal connected to said control terminal of said amplifying element, said variable resistor being operative to vary a voltage appearing at said output terminal of said amplifying element by changing a voltage applied to said control terminal of said amplifying element.

3. The power supply circuit according to claim 2, wherein said divider circuit comprises:

a resistor having a terminal connected to said input power supply; and

a Zener diode having a cathode connected to said resistor and having an anode connected to the ground.

4. The power supply circuit according to claim 3, wherein a terminal of said variable resistor is connected to said cathode of said Zener diode.

5. The power supply circuit according to claim 1, wherein the data drive voltage is within a range of a voltage which is lower than a threshold voltage of a liquid crystal used in said liquid crystal display device by 20 % of the threshold voltage to a voltage that is higher than the threshold voltage thereof by 20 % of the threshold voltage.

6. The power supply circuit according to claim 1, wherein the data drive voltage is within a range of 20% lower than a peak to peak voltage of a signal to 20% higher than a peak to peak voltage of a signal, which is inputted to said data driver.

7. The power supply circuit according to claim 1, wherein the number of diodes of said diode group is 7.

8. The power supply circuit according to claim 1, wherein said diodes of said diode group are silicon diodes.

9. The power supply circuit according to claim 1, wherein resistance of said current limiting resistor is within a range of 40 k $\Omega$  to 50 k $\Omega$ .

10. The power supply circuit according to claim 1,

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add  $a^4$